



US005983501A

United States Patent [19][11] **Patent Number:** **5,983,501****Izumi**[45] **Date of Patent:** **Nov. 16, 1999**[54] **ELECTRIC SHAVER**[75] Inventor: **Yukio Izumi**, Matsumoto, Japan[73] Assignee: **Izumi Products Company**, Nagano, Japan

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[22] Filed: **Mar. 19, 1998**[30] **Foreign Application Priority Data**

Apr. 2, 1997 [JP] Japan 9-083869

[51] **Int. Cl.⁶** **B26B 19/14**[52] **U.S. Cl.** **30/43.5; 30/43.4**[58] **Field of Search** 30/43, 43.4, 43.5,
30/43.6, 346.51[56] **References Cited****U.S. PATENT DOCUMENTS**

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Primary Examiner—Hwei-Siu Payer*Attorney, Agent, or Firm*—Koda & Androlia[57] **ABSTRACT**

An electric shaver including a single electric motor and a plurality of, for instance three, inner and outer cutters. The output shaft of the motor meshes with gear chains coupled to the inner cutters so that the inner cutters are rotated by the motor; and the output shaft of the motor is further coupled to a speed reduction mechanism that has a gear meshing with gears provided on the peripheries of the outer cutters so that the outer cutters are rotated by the motors at a slower rotation than the inner cutters.

4 Claims, 5 Drawing Sheets